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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :  
Dirk LEINWEBER, et al. : Attorney Docket: 2003DE430  
Serial No.: to be Assigned :  
Filed: December 21, 2005 :  
Title: Alkoxylated Dendrimers And Use Thereof As Biodegradable  
Demulsifiers

Transmittal Letter  
Notification of Amendments Under PCT Article 34

Mail Stop:  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Preliminary to the examination of the above-identified application, an Amendment was filed under Article 34 of the Patent Cooperation Treaty prior to the International Preliminary Examination. Please note that the attached pages, 12 and 13, Claims 1-9, were filed with the European Patent Office.

Applicant respectfully requests submission of this page before examination of the application and before entry of the Preliminary Amendment.

Respectfully submitted,

  
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## AMENDED CLAIMS

[Received at the International Office on September 28, 2004 (09.28.04);  
original claims 1-9 replaced by new claims 1-9 (2 pages)]

- 5 1. The use of alkoxyated dendrimers, which are dendritic polyesters,  
having a molecular weight of from 2400 to 100 000 g/mol which  
have been alkoxyated with C<sub>2</sub>-C<sub>4</sub>-alkylene oxide groups or a  
mixture of such alkylene oxide groups such that the alkoxyated  
10 dendrimer has a degree of alkoxylation of from 1 to 100 alkylene  
oxide units per free OH group, for breaking oil/water emulsions, in  
amounts of from 0.0001 to 5% by weight, based on the oil content of  
the emulsion to be broken.
- 15 2. The use as claimed in claim 1, where the dendrimer is a dendritic  
polyester based on a mono-, di- or polyfunctional starting alcohol  
and a carboxylic acid as dendritic growth component which has at  
least two hydroxyl groups.
- 20 3. The use as claimed in claim 1 and/or 2, where the starting alcohol  
used is bis(trimethylolpropane), bis(trimethylolethane),  
dipentaerythritol, pentaerythritol, alkoxyated pentaerythritol,  
trimethylolethane, trimethylolpropane, alkoxyated  
trimethylolpropane, glycerol, diglycerol, triglycerol, polyglycerol,  
neopentyl glycol, dimethylolpropane, sorbitol or mannitol.
- 25 4. The use as claimed in one or more of claims 1 to 3, where the  
carboxylic acid to the dendritic chain growth is dimethylolpropanoic  
acid,  $\alpha,\alpha$ -bis(hydroxymethyl)butanoic acid,  $\alpha,\alpha,\alpha$ -  
tris(hydroxymethyl)ethanoic acid,  $\alpha,\alpha$ -bis(hydroxymethyl)pentanoic  
30 acid,  $\alpha,\alpha$ -bis(hydroxy)propanoic acid or 3,5-dihydroxybenzoic acid.
- 35 5. The use as claimed in one or more of claims 1 to 4, where the  
alkoxyated dendrimers have a molecular weight of from 10 000 to  
50 000 g/mol.
6. The use as claimed in one or more of claims 1 to 5, in which the  
average degree of alkoxylation is between 1 and 70 alkylene oxide

units per free OH group.

7. The use as claimed in one or more of claims 1 to 6, in which the alkylene oxide is ethylene oxide or propylene oxide.
- 5 8. The use as claimed in one or more of claims 1 to 7, in which a mixed alkoxylation with ethylene oxide and propylene oxide with the ratio from 1:2 to 1:10 is present.
- 10 9. The use as claimed in one or more of claims 1 to 8, where the alkoxyated dendrimers are crosslinked using bisphenol A diglycidyl ether, butane-1,4-diol diglycidyl ether, hexane-1,6-diol diglycidyl ether, ethylene glycol diglycidyl ether, cyclohexanedimethanol diglycidyl ether, resorcinol diglycidyl ether, glycerol diglycidyl ether, 15 glycerol triglycidyl ether, glycerol propoxylate triglycidyl ether, polyglycerol polyglycidyl ether, p-aminophenol triglycidyl ether, polypropylene glycol diglycidyl ether, pentaerythritol tetraglycidyl ether, sorbitol polyglycidyl ether, trimethylolpropane triglycidyl ether, castor oil triglycidyl ether, diaminobiphenyl tetraglycidyl ether, soya 20 oil epoxide, adipic acid, maleic acid, phthalic acid, maleic anhydride, succinic anhydride, dodecylsuccinic anhydride, phthalic anhydride, trimellitic anhydride, pyromellitic anhydride, dimethoxydimethylsilane, diethoxydimethylsilane, toluene diisocyanate, diphenylmethane diisocyanate.